

IN THE CLAIMS:

1. (Currently Amended) A semiconductor light emitting device comprising:

a substrate;

a plurality of semiconductor blue-light emitting elements each having an epitaxial structure on the substrate;

5 a plurality of semiconductor red-light emitting elements that have been mounted on an electrically conductive pattern provided on the substrate; and

a phosphor that covers the semiconductor blue-light emitting elements and the semiconductor red-light emitting elements, wherein

10 each semiconductor red-light emitting element has been flip-chip mounted via at least one bump,

a vertical height of each semiconductor red-light emitting element from a main surface of the substrate is greater than a vertical height of each semiconductor blue-light emitting element from the main surface of the substrate, and

15 the semiconductor red-light emitting elements and the semiconductor blue-light emitting elements are arranged in a matrix, in such a manner that each semiconductor red-light emitting element is adjacent to semiconductor blue-light emitting elements in both row and column directions, except for some of the semiconductor blue-light emitting elements which are at corners of the substrate.

20 a plurality of pairs of pads that are on the substrate and together with the semiconductor blue-light emitting elements, arranged in a matrix, in such a manner that each pair

of pads is adjacent to a different one of the semiconductor blue-light emitting elements in a row and column direction; and

a plurality of semiconductor red-light emitting elements that are each mounted on a different one of the pairs of pads, wherein a height of each semiconductor red-light emitting element from the substrate is greater than a height of each semiconductor blue-light emitting element from the substrate..

2.-3. (Cancelled)

4. (Currently Amended) The semiconductor light emitting device of Claim 1, wherein each semiconductor blue-light emitting element comprises a blue LED, and each semiconductor red-light emitting element comprises a red LED, and further comprising:

a phosphor that covers the blue LEDs and the red LEDs and converts blue light emitted by the blue LEDs into green-yellow light the phosphor converts blue light emitted by the blue LEDs into green-yellow light.

5. (Previously Presented) The semiconductor light emitting device of Claim 4, wherein the red light, which is emitted by the red LEDs, has a peak emission wavelength within a range of 615 nm and 635 nm,

the blue light has a peak emission wavelength within a range of 450 nm and 470 nm, and

the green-yellow light has a peak emission wavelength within a range of 540 nm and 560 nm.

6. (Original) The semiconductor light emitting device of Claim 5, wherein
the red light has a peak emission wavelength within a range of 620 nm and 630
nm,

the blue light has a peak emission wavelength within a range of 455 nm and 465
5 nm, and

the green-yellow light has a peak emission wavelength within a range of 545 nm
and 555 nm.

7. (Original) The semiconductor light emitting device of Claim 4, wherein
the phosphor is a silicate phosphor ($\text{Ba, Sr}_2\text{SiO}_4\text{:Eu}^{2+}$).

8. (Original) The semiconductor light emitting device of Claim 4, wherein
the substrate is made of one of SiC and AlN materials.

9. (Previously Presented) The semiconductor light emitting device of Claim 4,
further comprising:

a wiring pattern that electrically connects the blue LEDs and the red LEDs
together.

10. (Previously Presented) The semiconductor light emitting device of Claim 9,
wherein

the wiring pattern connects the blue LEDs and the red LEDs together in series.

11.-15. (Cancelled)

16. (Currently Amended) A light emitting module comprising:

a printed-wiring board; and

a semiconductor light emitting device including:

a substrate;

5 a plurality of semiconductor blue-light emitting elements each having an epitaxial structure on the substrate;

~~a plurality of pairs of pads that are on the substrate and together with the semiconductor blue-light emitting elements, arranged in a matrix, in such a manner that each pair of pads is adjacent to a different one of the semiconductor blue-light emitting elements in a row and column direction; and~~

10

a plurality of semiconductor red-light emitting elements that ~~are each mounted on a different one of the pairs of pads, wherein a height of each semiconductor red-light element from the substrate is greater than a height of each semiconductor blue-light emitting element from the substrate, mounted on the printed-wiring board~~ have been mounted on an electrically conductive pattern provided on the substrate; and

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a phosphor that covers the semiconductor blue-light emitting elements and the semiconductor red-light emitting elements, wherein

each semiconductor red-light emitting element has been flip-chip mounted via at least one bump,

20 a vertical height of each semiconductor red-light emitting element from a main surface of the substrate is greater than a vertical height of each semiconductor blue-light emitting element from the main surface of the substrate, and

the semiconductor red-light emitting elements and the semiconductor blue-light emitting elements are arranged in a matrix, in such a manner that each semiconductor red-light emitting element is adjacent to semiconductor blue-light emitting elements in both row and column directions, except for some of the semiconductor blue-light emitting elements which are at corners of the substrate.

17. (Previously Presented) The light emitting module of Claim 16, further comprising:

a lighting apparatus including a closed structure in which the light emitting module is disposed.

18. (Currently Amended) The light emitting module of Claim 16, wherein each semiconductor blue-light emitting element comprises a blue LED, and each semiconductor red-light emitting element comprises a red LED, and further comprising:

~~a phosphor that covers the blue LEDs and the red LEDs and converts blue light emitted by the blue LEDs into green-yellow light and the phosphor converts blue light emitted~~
5 by the blue LEDs into green-yellow light and the phosphor converts blue light emitted by the blue LEDs into green-yellow light.

19. (Previously Presented) The light emitting module of Claim 18, wherein red light, which is emitted by the red LEDs, has a peak emission wavelength within a range of 615 nm and 635 nm,

the blue light has a peak emission wavelength within a range of 450 nm and 470
5 nm, and

the green-yellow light has a peak emission wavelength within a range of 540 nm and 560 nm.

20. (Previously Presented) The light emitting module of Claim 18, wherein the red light has a peak emission wavelength within a range of 620 nm and 630 nm,

the blue light has a peak emission wavelength within a range of 455 nm and 465 nm, and

5 the green-yellow light has a peak emission wavelength within a range of 545 nm and 555 nm.

21. (Previously Presented) The light emitting module of Claim 18, wherein the phosphor is a silicate phosphor ($\text{Ba, Sr}_2\text{SiO}_4\text{:Eu}^{2+}$).

22. (Previously Presented) The light emitting module of Claim 16, wherein the substrate is made of one of SiC and AlN materials.

23. (Previously Presented) The light emitting module of Claim 16, further comprising:

a wiring pattern that electrically connects the blue LEDs and the red LEDs together.

24. (Previously Presented) The light emitting module of Claim 23, wherein the wiring pattern connects the blue LEDs and the red LEDs together in series.

25. (Currently Amended) A method for manufacturing a semiconductor light emitting device comprising:

providing a substrate;

growing a plurality of semiconductor blue-light emitting elements on the substrate
5 with an epitaxial structure;

~~forming a plurality of pairs of pads on the substrate in such a manner that each
pair of pads is adjacent to a different one of the semiconductor blue-light emitting elements in a
row and column direction; and~~

~~mounting providing a plurality of semiconductor red-light emitting elements on
10 an electrically conductive pattern provided on the substrate; and a different one of the pairs of
pads, wherein a height of each semiconductor red-light emitting element from the substrate is
greater than a height of each semiconductor blue-light emitting element from the substrate.~~

~~providing a phosphor that covers the semiconductor blue-light emitting elements
and the semiconductor red-light emitting elements, wherein~~
15 ~~the semiconductor red-light emitting elements are provided by flip-chip mounting
each semiconductor red-light emitting element via at least one bump,~~

~~a vertical height of each semiconductor red-light emitting element from a main
surface of the substrate is greater than a vertical height of each semiconductor blue-light emitting
element from the main surface of the substrate, and~~

20 ~~the semiconductor red-light emitting elements and the semiconductor blue-light
emitting elements are arranged in a matrix, in such a manner that each semiconductor red-light
emitting element is adjacent to semiconductor blue-light emitting elements in both row and
column directions, except for some of the semiconductor blue-light emitting elements which are
at corners of the substrate.~~

26. (Currently Amended) The method of Claim 25, wherein each semiconductor blue-light emitting element comprises a blue LED, and each semiconductor red-light emitting element comprises a red LED, and ~~further comprising:~~

~~covering the blue LEDs and the red LEDs with a~~ the phosphor ~~[[that]]~~ converts
5 blue light emitted by the blue LEDs into green-yellow light.

27. (Previously Presented) The method of Claim 25, further comprising:

forming a wiring pattern that electrically connects the blue LEDs and the red LEDs together.